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OUR REF.: G&C 30566.97-US-U1  
TELEPHONE: (310) 642-4141

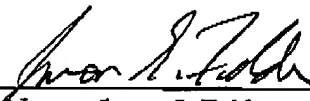
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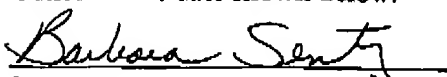
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Title of Document Transmitted:	TRANSMITTAL SHEETS, REQUEST FOR REINSTATEMENT OF THE APPEAL, AND SUPPLEMENTAL BRIEF OF APPELLANTS WITH CLAIMS APPENDIX, EVIDENCE APPENDIX, AND RELATED PROCEEDINGS APPENDIX.
Applicant:	Edward J. Connor et al.
Serial No.:	09/628,851
Filed:	July 31, 2000
Group Art Unit:	2673
Title:	GEOGRAPHICAL DATA MARKUP ON A PERSONAL DIGITAL ASSISTANT (PDA)
Our Ref. No.:	G&C 30566.97-US-U1

Please charge all fees to Deposit Account No. 50-0494 of Gates & Cooper LLP.

By:   
Name: Jason S. Feldmar  
Reg. No.: 39,187

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G&C 30566.97-US-U1

Due Date: December 21, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Edward J. Connor et al.	Examiner:	Prabodh M. Dharja
Serial No.:	09/628,851	Group Art Unit:	2673
Filed:	July 31, 2000	Docket:	G&C 30566.97-US-U1
Title:	GEOGRAPHICAL DATA MARKUP ON A PERSONAL DIGITAL ASSISTANT (PDA)		

**CERTIFICATE OF MAILING OR TRANSMISSION UNDER 37 CFR 1.8**I hereby certify that this correspondence is being filed via facsimile transmission to the U.S. Patent and Trademark Office on December 21, 2005.By:   
Name: Jason S. Feldmar

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

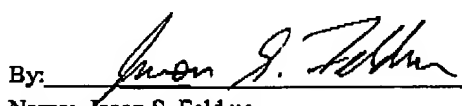
We are transmitting herewith the attached:

- ☒ Transmittal sheet, in duplicate, containing a Certificate of Mailing or Transmission under 37 CFR 1.8.
- ☒ Request for Reinstatement of the Appeal.
- ☒ Supplemental Brief of Appellants with Claims Appendix, Evidence Appendix, and Related Proceedings Appendix.

Please consider this a PETITION FOR EXTENSION OF TIME for a sufficient number of months to enter these papers, if appropriate.

Please charge all fees to Deposit Account No. 50-0494 of Gates & Cooper LLP. A duplicate of this paper is enclosed.

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By:   
Name: Jason S. Feldmar  
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JSF/bjs

Due Date: December 21, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Name: Jason S. Feldmar

**MAIL STOP APPEAL BRIEF - PATENTS**

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Customer Number 22462**GATES & COOPER LLP**

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G&amp;C 30566.97-US-U1

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DEC 21 2005

Due Date: December 21, 2005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:	)	
	)	
Inventor: Edward J. Connor et al.	)	Examiner: Prabodh M. Dharja
	)	
Serial #: 09/628,851	)	Group Art Unit: 2673
	)	
Filed: July 31, 2000	)	Appeal No.: _____
	)	
Title: <u>GEOGRAPHICAL DATA MARKUP ON</u>	)	
<u>A PERSONAL DIGITAL ASSISTANT (PDA)</u>	)	

## SUPPLEMENTAL BRIEF OF APPELLANTS

## MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In accordance with 37 CFR §41.37, Appellants hereby request reinstatement of the Appeal with the submission of this Supplemental Brief on Appeal from the rejection in the above-identified application, as set forth in the Office Action dated September 21, 2005.

The amount of \$500.00 was previously submitted with the Appeal Brief filed on January 3, 2005. Accordingly, no further fee is due at this time under 37 CFR §41.37(a)(2) and 37 CFR §41.20(b)(2). Nonetheless, please charge any additional fees or credit any overpayments to Deposit Account No. 50-0494 of Gates & Cooper LLP.

I. REAL PARTY IN INTEREST

The real party in interest is Autodesk, Inc., the assignee of the present application.

## II. RELATED APPEALS AND INTERFERENCES

On January 3, 2005, an Appeal Brief was submitted for the above-identified case. Prosecution was reopened in the form of an Office Action mailed on May 2, 2005. A response to the Office Action was filed on August 2, 2005. The current Office Action is a non-final Office Action that was mailed on September 21, 2005. This Appeal Brief request reinstatement of the prior Appeal.

There are no pending related appeals or interferences for the above-referenced patent application.

## III. STATUS OF CLAIMS

Claims 1-62 are pending in the application.

Claims 1-4 are rejected under 35 U.S.C. §103(a) as being unpatentable over Barnard (6,456,938) in view of DeLorme et al. (5,848,373).

Claims 5, 7-9, 11-16, 18-31, 33, 34, 36, 37, and 57-60 are rejected under 35 U.S.C. §103(a) as being unpatentable over Barnard in view of DeLorme as applied to claims 1-4 above, and further in view of Ching (6,560,620 B1).

Claims 38-40 are rejected under 35 U.S.C. §103(a) as being unpatentable over Neal (6,192,518 B1) in view of Barnard.

Claims 41, 42, 44-49, 51, 52, 54, 61, and 62 are rejected under 35 U.S.C. §103(a) as being unpatentable over Neal in view of Barnard and further in view of Ching.

Claims 6, 10, 17, 32, 35, 37, 43, 50, 53, 55, and 56 are merely objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form.

Appellants request reconsideration of all of the above rejections.

## IV. STATUS OF AMENDMENTS

No amendments to the claims have been made subsequent to the Office Action.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

Generally, all of the claims are directed toward a user marking up a map displayed on a screen of a personal digital assistant (PDA) (e.g., using a stylus). The summary set forth herein will

describe independent claims 1, 2, 13, 15, 18, 20, 31, 33, 36, 38, 49, 51, and 54, and the dependent claims depending thereon.

Independent claim 1 provides a system for processing markup data for a map on a PDA (see page 4, lines 4-7). The first claim element provides for a PDA (see page 6, lines 7-13). The second claim element sets forth an application on the PDA that is configured with various functions (see page 6, lines 10-13 and page 9, lines 11-20). The application first obtains a map as an encoded and spatially indexed vector representation of geographic data from a server (see Fig. 1 and page 14, lines 8-12 and page 15, lines 3-7). The map is displayed on the screen of the PDA (see page 15, lines 3-7; item 600 of Fig. 6A, page 21, lines 6-7). The user then marks up the map with a stylus (see page 9, lines 9-20; page 15, lines 8-14; page 19, lines 19-23; item 602 of Fig. 6A, Fig. 5; page 21, lines 2-16). A file is then created that is comprised of the markup data (see page 15, line 18 – page 16, line 23; page 17, lines 16-20; and Fig. 3). The file is then uploaded from the PDA to the server (see 17, lines 16-20 and Fig. 3).

Independent claim 2 also provides a system for processing markup data for a map. The system of claim 2 provides for a PDA (see page 6, lines 7-13) and an application configured with various functions (see page 6, lines 10-13 and page 9, lines 11-20). The functions are set forth in two elements: (1) obtaining a file comprised of markup data for a map; and (2) uploading the file to a server (see page 15, line 18 – page 16, line 23, page 17, lines 16-20, and Fig. 3).

Dependent claim 3 provides that the markup data of claim 2 comprises pixel data for a markup entity (see page 15, lines 19-23).

Dependent claim 4 depends on claim 2 and provides that the PDA obtains the file of markup data by obtaining the markup data from a user (see page 9, lines 9-20; page 15, lines 8-14; page 19, lines 19-23; item 602 of Fig. 6A, Fig. 5; page 21, lines 2-16).

Dependent claim 5 depends on claim 4 and provides that the markup data is a redline line (see page 19, lines 19-23 and page 21, lines 1-16).

Dependent claim 6 depends on claim 5 and provides that the markup data is obtained from the user by determining when a new redline object has been selected and then obtaining a redline object while a stylus remains in contact with a screen of the PDA (see page 19, lines 19-23 and page 21, lines 1-16).

Dependent claim 7 further depends on claim 6 and provides for displaying a text edit dialog

box on the screen of the PDA and accepting user input in the text edit dialog box (see page 21, line 17-page 22, line 17).

Dependent claim 8 provides that the markup data of claim 4 is a note (see page 19, line 18-page 20, line 6; page 22, line 19-page 24, line 1).

Dependent claim 9 obtains the note of claim 8 through various steps including – determining when a new note object has been selected (see Fig. 7 and page 23, lines 1-6), accepting a user selection of an anchor point in a display of a map on the PDA (see Fig. 7 and page 23, lines 6-7), displaying a text entry screen on the PDA (see Fig. 7 and page 23, lines 7-8), accepting text user input into the text entry screen (see Fig. 7 and page 23, lines 8-11), and displaying an icon representative of a note at the anchor point (see Fig. 7 and page 23, lines 11-13).

Dependent claim 10 further elaborates on the data uploading to a server set forth in claim 2. Initially, a socket connection is obtained. Subsequently, an inventory of resident mapsets is obtained. The application then searches for markup data associated with the resident mapsets and uploads all of the resident markup data to the server. (See Fig. 4 and page 18, line 19 – page 19, line 11).

Dependent claim 11 provides a further limitation relating to claim 10. Specifically, claim 11 provides that the markup data is uploaded to a server directory on a server using a hypertext transfer protocol PUT request (see page 19, lines 3-11).

Dependent claim 12 depends on claim 11 and provides that the application downloads new mapsets, deletes unreferenced mapsets, and deletes any markup data associated with the deleted mapsets (see Fig. 4 and page 19, lines 7-11).

Independent claim 13 provides a system for processing markup data for a map. This claim is directed towards the server perspective and accordingly details the actions performed by a server. First the server obtains a file comprised of markup data for a map (see page 15, lines 18-19). Thereafter, the server converts the markup data to coordinate data and uses the coordinate data to obtain a standard data format (SDF) file that can be used to superimpose the markup data on the map (see page 15, line 19 - page 16, line 4).

Dependent claim 14 provides details regarding the coordinate data of claim 13. Namely, the coordinate data comprises mapping coordinate system (MCS) coordinates (see page 15, lines 19-23). Further, the server converts the MCS coordinates into latitude/longitude coordinates (see page 15,

lines 19-23).

Independent claim 15 is directed towards a graphical user interface (GUI) used to obtain redline markup data on the PDA. Specifically, claim limitations specify that the graphical user interface determines when a new redline object has been selected (see Fig. 5, Fig. 6A, and page 21, lines 2-16) followed by obtaining a redline object while a stylus remains in contact with a screen of the PDA (see Fig. 5, Fig. 6A, and page 21, lines 2-16).

Dependent claim 16 provides further details with respect to claim 15. Namely, the GUI displays a text edit dialog box on the PDA screen and accepts text user input in the text dialog box (see page 21, line 17-page 22, line 17).

Dependent claim 17 provides the further ability to synchronize the redline markup data with a server (see Fig. 4, page 18, line 19-page 19, line 16).

Independent claim 18 is similar to independent claim 15 but provides details for obtaining note markup data for a map on a PDA (i.e. instead of redline markup data as in claim 15). In this regard, the limitations are similar to those set forth in claim 9 above. Namely, the application determines when a new note object has been selected (see Fig. 7 and page 23, lines 1-6), accepting a user selection of an anchor point in a display of a map on the PDA (see Fig. 7 and page 23, lines 6-7), displaying a text entry screen on the PDA (see Fig. 7 and page 23, lines 7-8), accepting text user input into the text entry screen (see Fig. 7 and page 23, lines 8-11), and displaying an icon representative of a note at the anchor point (see Fig. 7 and page 23, lines 11-13).

Dependent claim 19 synchronizes the markup data with a server (see Fig. 4, page 18, line 19-page 19, line 16).

Dependent claims 56, 57, and 58 provide limitations with respect to the system of claims 1, 2, and 13 respectively. Namely the file comprised of markup data is separate from the file comprised of the geographic data and the map.

Claims 20-37 and 59-60 are method claims corresponding to system claims 2-19.

Claims 38-55 and 61-62 are article of manufacture claims corresponding to system claims 2-19.

## VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Appellants appreciate the indication of allowable subject matter. However, as set forth



herein, Appellants respectfully traverse the rejections.

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Barnard (6,456,938) in view of DeLorme et al. (5,848,373).

Claims 5, 7-9, 11-16, 18-31, 33, 34, 36, 37, and 57-60 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Barnard in view of DeLorme as applied to claims 1-4 above, and further in view of Ching (6,560,620 B1).

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Claims 41, 42, 44-49, 51, 52, 54, 61, and 62 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Neal in view of Barnard and further in view of Ching.

## VII. ARGUMENT

Appellants acknowledge the indication of allowable claims, but respectfully traverse the rejections.

### A. Barnard Does Not Qualify as a Prior Art Reference

As indicated in a telephonic interview with the Examiner conducted on December 14, 2005 and all of the prior responses, Appellants submit that Barnard does not qualify as prior art with respect to the present invention. Specifically, the present invention was filed on July 31, 2000 and claims priority to various provisional applications filed on October 12, 1999 and March 29, 2000. However, Barnard was merely filed on July 21, 2000 and claims priority to a provisional application filed on July 23, 1999. Thus, while Barnard's provisional date beats the filing and priority dates of the present application, Barnard's actual filing date fails to beat the provisional based priority dates of the present invention.

In this regard, Appellants submit that the present invention is entitled to the priority dates based on the claim language and support under 35 USC 112 found in the provisional applications relied upon. Accordingly, the question arises as to whether Barnard's provisional date may be used to establish priority over the present invention.

Appellants acknowledge that when an application is filed, the priority date of the provisional may be used for that application. However, a different standard applies when attempting to use such a reference to reject an application such as the present application.

To rely on a provisional filing date to beat the date of the present invention, two conditions must be satisfied: (1) the subject matter of the claim in the issued patent must be supported in accordance with 35 U.S.C. 112, first paragraph, in the earlier filed application, AND (2) the subject matter used in the rejection must be disclosed in the earlier-filed application in compliance with 35 U.S.C. 112, first paragraph, in order for that subject matter to be entitled to the earlier filing date under 35 U.S.C. 102(e). (See MPEP 201.11 and MPEP 706.02(f)(1); *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 47 USPQ2d 1829 (Fed. Cir. 1998); *In re Scheiber*, 587 F.2d 59, 199 USPQ 782 (CCPA 1978); *Studiengesellschaft Kohle m.b.H. v. Shell Oil Co.*, 112 F.3d 1561, 1564, 42 USPQ2d 1674, 1677 (Fed. Cir. 1997); and *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1294, 63 USPQ2d 1843, 1846 (Fed. Cir. 2002)).

It is clearly apparent that Barnard fails to meet the above two standards. For example, in rejecting claim 1, the prior Office Action relied on col. 42, lines 58 through col. 43, line 5 of Barnard to teach the claimed element of "encoded". Col. 42, lines 58 through col. 43, line 5 of Barnard is a portion of claim 44 of Barnard. The claims of Barnard are the only area of Barnard that utilizes the term "encode". For these claims to have priority based on the provisional date, the provisional must support the claims as issued AND the subject matter used in the rejection (i.e., the use and description of the "encoding") must be disclosed in the provisional application. However, upon an examination of Barnard's provisional application, there does not appear to be any use or description of an "encoding" or a process where data is encoded whatsoever. Further, Barnard's provisional application lacks support under 35 USC 112 for a portable information processing and viewing device that has an information processor for the storage, retrieval, and processing of data which encodes information. Appellants were unable to find any reference in Barnard's provisional to an information processor or encoding.

In view of the above, Appellants submit that the subject matter used to reject claim 1 was not disclosed in Barnard's provisional in accordance with 35 USC 112. Further, the subject matter used in the rejection (i.e., claim 44) lacks support under 35 USC 112 in Barnard's provisional application. Accordingly, the relied portion of Barnard cannot be used to reject the claims.

In response to the above assertions the prior final Office Action provided:

Examiner disagrees as per MPEP 201.04(b) as sec 35 USC 119(c) the provisional application date is the early filing date of non-provisional application. Barnard does teach an encoded and spatially indexed vector representation of geographic data. (Claims 54 and 55 of Barnard's do teach as well as elaborate term encoding and representation of geographic data. Barnard disclosure (Detail description) has same teaching and elaboration in (Cols. 12-18, 22, 27, 31, 32, 34-36, and provisional teaches on pages 52, 53, 54, 55).

Appellants respectfully disagree and traverse the above.

Firstly, the Examiner is relying on MPEP 201.04(b) and 35 USC 119(c) which clearly relate to provisional applications and fail to set forth the details with respect to claiming priority which are set forth in MPEP 201.11 and MPEP 706.02(f)(1) and the case law cited above. Such reliance completely lacks a legal foundation.

Secondly, as set forth above, the legal requirements require that (1) the subject matter of the claim in the issued patent must be supported under 35 U.S.C. 112 in the provisional, and (2) the subject matter used in the rejection must be disclosed in the earlier-filed application. The final Office Action has relied on provisional application pages 52, 53, 54, and 55 to satisfy both requirements (1) and (2). Appellants again note that pages 52-55 completely fail to mention the term "encoding" or "encode" and fail to describe the encoding of any information whatsoever. Accordingly, claims 44 and 55 (which both recite and use the term "encode") are not supported by the provisional application. On such a basis, Barnard is not entitled to the provisional date of the application. Further, pages 52-55 of the provisional also fail to describe an information processing and viewing device that has an information processor for the storage, retrieval and processing of data. Such an information processor is required in all of Barnard's issued claims 44, 54, and 55. In view of the above, Appellants submit that the language of the provisional application does not support the issued claims of Barnard. Accordingly, under requirement (1), Barnard is not entitled to the provisional date.

In addition, under requirement (2), the provisional fails to describe the subject matter that the Examiner has relied upon in the issued utility. Thus, under requirement (2), Barnard is also not entitled to the filing date of the provisional application.

In view of the above, Appellants submit that Barnard is not a valid reference with respect to the priority date of the present application and cannot be used to reject the present claims. In this

regard, Appellants respectfully request that all rejections based on Barnard be reconsidered on such grounds.

Appellants note that the above arguments that were submitted in the prior Appeal Brief were not addressed at all in either the prior or the current pending Office Action. Appellants respectfully request reconsideration of the above previously submitted arguments.

In addition, Appellants note that the Office Action now relies on col. 14, lines 34-67 of Barnard to teach the encoding aspects of the information. Such a portion of Barnard relates to minimizing the logging of points by controlling the rate of logging as a function of speed. Further, this portion of text relates to submitting, to a web site, a vector-map with two feature perimeter vectors with a maximum spatial separation between greens. Such a maximum spatial separation relates to selecting features that are not on adjacent holes but are far apart. This text also describes the positioning of vectors over a raster aerial of satellite image and manipulating the map until properly aligned.

There are two defects with such a citation. Firstly, such a teaching is not an encoding as set forth in the present claims (see arguments below). Secondly, the provisional only mentions the log rate briefly on page 8 and does not provide the full text support that is relied upon in column 14.

The Office Action continues and relies on col. 21, lines 18-45, col. 24, lines 40-41, col. 25, lines 34-37 and col. 25, lines 63-67. Again, the Office Action completely fails to indicate where such support in the provisional application is provided (an element that is clearly required based on the MPEP and existing case law).

In response to some of the above arguments, the Office Action merely provides:

It will be unusual for Barnard to recite encoding in the Claims and do not have support for it in the detailed description. Barnard teaches (i) obtain a map as an encoded (Col. 14, lines 34-67, Barnard does teach encoding (Google defines as detail information assigned specific coding, e.g., lines, points and features, attributes is spatially index vectorized), Col. 21, Lines 18-45, begins marking feature per each holes, Col. 24, Lines 40, 41, view the marking, Col. 25, Lines 34-37, the data is uploaded as a file and Col. 25, Lines 63-67, saved on non volatile RAM or removable Ram Card acts as a disk) and spatially indexed vectorized feature are labeled (another word for indexed defined by Webster dictionary).

Appellants submit that such assertions illustrate a misunderstanding of the MPEP and supporting case law. Again, support for Barnard's issued claims may have and probably exist in Barnard's issued utility (Appellants did not review Barnard's specification for such support).

However, whether such support exists in the issued application is not the relevant issue. Instead, the

issue is whether Barnard's issued claims have support in the provisional application and whether the text cited in the issued utility has support in the provisional application.

Such an analysis is wholly lacking from any of the Office Actions. In addition, Appellants submit that since Barnard's issued claims fail to have support in the filed provisional, the filing date of the provisional application cannot be used to beat Appellant's filing date. Accordingly, Barnard is an invalid reference (see citations to MPEP and case law above).

**B. The Office Action Improperly Relies on Uncited References**

The Response to Arguments section recites various references. For example, a definition found in Google is recited for encoding. As far as Appellant knows, Google is a search engine and is not a dictionary that provides definitions. Accordingly, it is unknown what definition is relied upon or what the valid reference date for such a definition is.

In addition, the Response to Arguments section relies on a definition found in Webster's dictionary. However, the definition is not provided to Appellants nor is the date of the dictionary provided to Appellants.

In view of the above, Appellants submit that the Office Action fails to properly cite both the Google reference and Webster reference that is relied upon. Further, it is unclear from the Office Action if the definitions were relied upon to reject the claims or not.

In addition, various patents are also utilized in the text of the rejections but are not used to formally reject the claims. Such a reliance is improper. Further, at least one of the cited references is an invalid reference (see detailed discussion below).

Also, Appellants submit that in accordance with recent case law, the specification of the present invention and not dictionaries should be utilized as the primary source for defining claim wording. Thus, the rejections are improper and fail to establish a prima facie case of obviousness.

**C. Independent Claim 1 is Patentable Over the Cited Art**

Independent claim 1 was rejected as follows:

As to claim 1, Barnard teaches a system for processing markup data for a map (Col. 15, lines 39-47) on a personal digital assistant (Col. 19, Lines 4-7) comprising: (a) a personal digital assistant (Col. 19, lines 4-7); (b) an application on the personal digital assistant (Col. 15, Lines 39-47, Col. 19, Lines 4-7), the application configured to: (i) obtain a map as an encoded (Col. 14, lines 34-67, Barnard does teach encoding as every minute information (e.g. lines, points and features) is spatially

vectorized to be decoded into a map file, Col. 21, Lines 18-45, begins marking feature per each holes, Col. 24, Lines 40, 41, view the marking, Col. 25, Lines 34-37, the data is uploaded as a file and Col. 25, Lines 63-67, saved on non volatile RAM or removable Ram Card acts as a disk) and spatially indexed vector representation of geographic data from a server (Col. 14, Lines 34-64, Col. 18, Lines 58-60, where each spatially vectored feature are labeled (another word for indexed defined by Webster dictionary); (ii) display the map on a screen of the personal digital assistant (Col. 15, Lines 39-42, Col. 19, Lines 4-12); (iii) obtain markup data (Col. 21, Lines 18-45, begins marking feature per each holes, Col. 24, Lines 40, 41, view the marking, Col. 25, Lines 34-37, the data is uploaded as a file and Col. 25, Lines 63-67, saved on non volatile RAM or removable Ram Card acts as a disk); (iv) create a file (Col. 17, Lines 12-15 receives map data file and Col. 18, Lines 10-18, adds feature of his choice creates markup Map data file Col. 21, Lines 18-45, begins marking feature per each holes, Col. 24, Lines 40, 41, view the marking, Col. 25, Lines 34-37, the data is uploaded as a file and Col. 25, Lines 63-67, saved on non volatile RAM or removable Ram Card acts as a disk); (v) upload the file of markup data from the personal digital assistant to the server (Col. 16, Lines 66, 67, the Palm can upload or download from internet i.e. server, Col. 36, Lines 33-42, Col. 6, Lines 14-17).

However, Barnard fails to teach or recite in specification obtain a map as an encoded and spatially indexed vector representation of geographic data from a server.

However, DeLorme teaches obtain a map as an encoded (Col. 63, Lines 60-63) and spatially (col. 38, Lines 17-22) indexed (Webster defines as ID or label, in this case grid name (Col. 63, Lines 60-63) vector representation of geographic data (Col. 52, Lines 31-38, Col. 63- 38-58) from a server (Col. 61, Line 1, CAMLS server).

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of DeLorme in to the Barnard to be able to have encoded map data for correlation and coordination of spatially related vectored data between digital different electronic medias.

Appellants traverse the above rejection for at least one or more of the following reasons:

- (1) Neither Barnard nor DeLorme teach, disclose or suggest an encoded and spatially indexed vector representation of geographic data;
- (2) Neither Barnard nor DeLorme teach, disclose or suggest obtaining markup data, creating a file comprised of the markup data, and uploading the markup data from a PDA to a server;

As described above, independent claim 1 provides a system for processing markup data for a map on a PDA. Specifically, an application on a PDA is configured with various functions. The application first obtains a map as an encoded and spatially indexed vector representation of geographic data from a server. The map is displayed on the screen of the PDA. The user then marks up the map with a stylus. A file is then created that is comprised of the markup data. The file is then uploaded from the PDA to the server.

The cited references do not teach nor suggest these various elements of Appellants' independent claims. In addition, as indicated above, the priority date of Barnard cannot be relied upon for priority purposes.

Appellants submit that Barnard fails to teach the invention as claimed. Specifically, claim 1 provides that the map is obtained as an encoded and spatially indexed vector representation of geographic data. In rejecting this element, the Office Action relies upon col. 14, lines 34-67. However, this portion of Barnard (and the remainder of Barnard) merely describes a vector-map. Mere recital of a vector-based map ignores the specifically claimed terms "spatially indexed". Under MPEP §2142 and 2143.03 "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." In this regard, the terms "spatially" and "indexed" cannot merely be ignored when rejecting the claims. These terms have specific meanings as set forth in the application. In addition, Barnard completely fails to teach, suggest, or even remotely allude to a spatially indexed vector representation of geographic data. Instead, Barnard merely describes a vector-map without disclosing whether it is or is not spatially indexed. Such a teaching cannot read on the present invention under either 35 USC 102 or 103.

The Response to arguments section and Office Action submit that encoding is defined in Google as detail information assigned specific coding. Based on such a definition, the Action provides that Barnard's lines, points, features, and attributes are spatially index vectorized. Further, the Action states that attributes is spatially index vectorized. The text then states that col. 14, lines 34-64, and col. 18, lines 58-60 provide that each spatially vectored feature is labeled which is another word for indexed according to Webster.

Appellants respectfully traverse such assertions. Firstly, Applicants submit that such a citation to Google is improper as described above. Such a reference has no date and the full content of the recited "definition" has not been provided to Applicants.

Secondly, the claims provide for a spatially indexed vector representation of geographic data. In this regard, the word "spatially" modifies the term "indexed". The cited art completely fails to teach any such spatial indexing. Further even using the definition asserted by the Examiner, the cited art does not provide for spatial labels. In this regard, col. 14, lines 34-64 do not describe, teach, or suggest labels of any form. Instead, points are logged. Further, col. 18, lines 58-60 merely describes labeling an item that has been mapped. Such a teaching is not even remotely similar to

that set forth in the claims. Further, the support for such maximum separation and point logging is wholly lacking from the provisional application. Thus, such a description is only entitled to the filing date of the utility application that postdates the priority date of the present invention.

The Office Action admits Barnard's failure to teach "the obtaining the map as an encoded and spatially indexed vector representation of geographic data from a server". Instead, the action relies on DeLorme. However, Appellants submit that DeLorme also fails to teach these specifically claimed elements. Again, the claims explicitly require that the map is an encoded and spatially indexed vector representation of geographic data. Nowhere in DeLorme is there any description, implicit or explicit, that even remotely described vector data that is spatially indexed. In this regard, the spatial indexing of the geographic data cannot merely be ignored when applying the prior art. DeLorme. In fact, an electronic search of DeLorme for the term "index" provides a single result in col. 43, line 19 that provides that an a CAMLS loc/object may have a loc/object type index that is part of the ID of every CAMLS loc/object. However, such an index for a CAMLS loc/object does not teach, describe, suggest, or allude to geographic data that is spatially indexed as claimed. The spatial indexing as set forth in the claims is clearly described in the specification and related applications (that are incorporated by reference). Without describing any spatial indexing whatsoever, DeLorme cannot possibly teach this claim element.

The Office Action asserts that the "encoded" limitation is taught in col. 63, lines 60-63. Col. 64, lines 56-64 describes a user using a pen or pencil to mark a location of an accident on a printed map. The printed map is encoded with grid quadrangles of a computer aided map location system (CAMLS) grid system to identify the location of an accident by gridname. Such a teaching is not even remotely similar to that claimed. Firstly, the claims provide that the application on the PDA obtains the map from a server. The cited text merely describes a printed map that is marked by hand by a user. Such a teaching does not describe an encoded representation obtained from a server on a PDA.

The Action then relies on col. 38, lines 17-22 to teach the "spatial" aspect of the claims. As described above, the term spatial modifies the term index. Accordingly, it is a spatial index. The Office Action separates the term spatial from index and asserts different locations of DeLorme for the various aspects. Such a rejection is wholly without merit. In addition, col. 38, lines 17-22 describes how data events, that may be geocoded in terms of spatially relating the data event to a



common geographical coordinate system, are passed to a mapping data subsystem. Such a teaching does not describe a spatial index or spatial "label" as asserted in the Office Action. Again, the map is encoded and a spatially indexed vector representation of geographic data that is obtained from a server onto a PDA. Such a unique combination of attributes are not taught or disclosed by Delorme or Barnard.

The remainder of claim one provides for obtaining markup data, creating a file comprised of the markup data and uploading the markup data from the PDA to the server. Appellants note that the file comprised of the markup data is clearly distinguishable from the map or geographic data as set forth in the claims. Specifically, the map is obtained as an encoded and spatially indexed vector representation of geographic data from a server. The application on the PDA then creates the file with the markup data.

In rejecting this claim element, the Action first relies on Barnard col. 25, lines 63-67 to indicate that the data is saved on nonvolatile RAM or a removable RAM card that acts as a disk. Appellants respectfully traverse such an assertion. Col. 25, lines 61-67 provides:

Before going onto a golf course for the first time to play a round of golf, the user will have to load a file containing vector and attribute data for that course. The course data may be loaded by connecting to a PC or directly to the Internet web site. The course data will be stored in nonvolatile RAM or a removable RAM data card. When the system is turned on the previous game play-state is resumed.

From this text, it can clearly be seen that the original map course data is stored in non-volatile RAM. There is no teaching, explicit or implicit, that describes the PDA creating a file that is comprised of the markup data that is separate from the file containing the map (as clearly set forth in the present claims. Again, the course data stored in RAM is the course data that is loaded onto Barnard's device before playing golf for the first time and before any markup data is created. Thus, rather than having two separate files, as claimed, Barnard explicitly provides for a single file that contains both markup and the map data. Therefore, Barnard actually teaches away from the present invention.

Again, the claims specifically recite the ability create a new file for the markup data that is separate from the map that is on the PDA. Nowhere in Barnard or Delorme is any such description even remotely hinted at.

Appellants further note that col. 18, lines 14-18 provide for map data files that includes score card data such as hole data and other course data. In this regard, Barnard's map data file contains all of the course data and information for a particular golf course. This concept of a single file for all map data is clearly set forth in Barnard's provisional application on page 37, section 2.3.4. However, Barnard does not teach nor suggest that there are two separate files for the map data and the markup data (as claimed). The claims provide for creating the file and clearly distinguish between the file containing the markup data and the map data/map set. Further, to more clearly distinguish that separate files are used, dependent claims 56-62 specify that the files are separate (see argument below with respect to these dependent claims).

Also, as described above, the claims provide that the created file is comprised of the markup data. In rejecting the file comprised of markup data, the Office Action recites col. 21, lines 3-63. However, Appellants note that nowhere in col. 21, lines 3-63 is there any description of a file whatsoever. Further, there is no creation of a file that is comprised of markup data. Instead, towards the end of col. 21, Barnard merely describes logging GPS locational data at a predetermined rate. Such locational data is not markup data as set forth in Barnard or as set forth in the present claims. Further, logging GPS data is not even remotely equivalent to creating a file (regardless of whether that file is comprised of markup data or not).

In view of the above, Appellants submit that claim 1 is allowable over the cited references. In this regard, various portions of Barnard are not permitted to be relied upon for priority purposes. Further, the teaching of Barnard fails to set forth various elements/limitations of the present claims.

Appellants also note that the above arguments were submitted in response to the first Office Action. In response, the prior final Office Action provides:

Applicant argues obtaining markup data, creating a file comprised of the markup data and uploading the markup data from PDA to server.

Examiner disagrees Barnard does teach obtaining markup data (Col. 21, lines 18-27, col. 25, lines 43-49, col. 28, lines 33-61), creating a file comprised of the markup data (Col. 21, Line 17 to Col. 22, Line 67) and uploading the markup data from PDA to server (Col. 25, Lines 33-56).

Appellants respectfully disagree with and traverse the above assertions. Appellants asserted that Barnard fails to teach creating a file comprised of the markup data wherein the claims clearly set forth that such a file is different from the map received from the server. The Examiner disputes such an assertion relying on col. 21, line 17 to col. 22, line 67. Instead of teaching the claimed

limitations, Appellants submit that such a portion teaches away from the claim limitations. Firstly, the cited portion describes the use of a "Mark" function during which pressed position data is stored in RAM (see col. 21, lines 30-32). Appellants note that RAM is random access memory and is not a file. Further, as described above, data stored in RAM is not stored separately from the map data itself. In addition, as understood in the art, RAM is not CREATED by the PDA. Instead, it already exists and the data is merely placed into RAM. The claims explicitly require the creation of a file. Merely recording data in RAM is not the creation of any file whatsoever. In addition, the cited portion clearly indicates that that data is logged in the map file (see col. 22, lines 54-55). Appellants note that the map file is the same file that contains the map that is being marked up. Accordingly, a file comprised of the markup data is not being "created" by the application on the PDA. Instead, Barnard's existing map file (and not a newly created file) is merely being used to maintain the log.

In view of the above, Appellants submit that by teaching the logging of data to an existing map file, Barnard explicitly teaches away from the claimed creating of a file that is comprised of the markup data and thereafter uploading the file of markup data from the PDA to the server. Thus, contrary to that asserted in the final Office Action, Barnard teaches away from the present invention. Further, since Barnard teaches away from the implementation, even if DeLorme is found to teach the element, Barnard cannot be combined with DeLorme based on such a teaching away.

In view of the above, Appellants submit that claim 1 is allowable over the cited art and requests reconsideration of the rejections set forth in the final Office Action.

**D. Independent Claim 2 is Patentable Over the Cited Art**

The Office Action rejects independent claim 2 as follows:

As to claim 2, Barnard teaches a system for processing markup data for a map (Col. 15, Lines 39-47, Col. 21, Lines 18-45, begins marking feature per each holes, Col. 24, Lines 40, 41, view the marking, Col. 25, Lines 34-37, the data is uploaded as a file and Col. 25, Lines 63-67, saved on non volatile RAM or removable Ram Card acts as a disk) (a) a personal digital assistant (Col. 19, Lines 4-7); and (b) an application on the personal digital assistant (Col. 13, Lines 33-41), the application configured to: (i) obtain a file comprised of markup data for a map (Col. 18, Lines 14-18, Col. 20, Lines 2-5, 10-14, Col. 36, Lines 33-55, Col. 25, Lines 50-55); and (ii) upload the file to a server (Col. 36, Lines 33-42, Col. 6, Lines 14-17, Col. 25, Lines 34-38).

Claim 2 provides for a PDA, obtaining a file comprised of markup data for a map and uploading the file to a server. Appellants reassert the arguments set forth above with respect to claim 1. In this regard, Appellants submit that Barnard completely fails to describe obtaining a file

comprised of markup data for a map. Instead, Barnard merely provides for obtaining position data into RAM. Further, Barnard merely uses a single map data file containing vector and attribute data (see page 20, paragraph 2 of the provisional application). Such a teaching is clearly distinguishable from the claimed file, which simply comprises markup data for a map that is separable from the map data. Further, dependent claims 56-62 (discussed in detail below) specify that the file comprised of the markup data is separate from a file comprising the map.

In view of the above, Appellants submit that claim 2 is allowable over the cited references and respectfully requests reconsideration of the rejections.

E. Dependent Claims 3-5 Are Not Separately Argued.

F. Dependent Claim 6 Has Merely Been Objected to as Containing Allowable Subject Matter and is Therefore Not Separately Argued.

G. Dependent Claims 7-8 Are Not Separately Argued

H. Dependent Claim 9 is Patentable Over the Cited Art

Claim 9 provides for obtaining a note markup data for a map on a PDA. Specifically, upon selecting a new note object, an anchor point is selected, a text entry screen is used to enter text input, and an icon representative of a note is displayed at the anchor point. Appellants submit that neither Barnard nor Neal teach, disclose or suggest displaying an icon representative of a note at an anchor point selected by a user.

In rejecting this claim, the Office Action recites various portions of cols. 18, 20, 21, 22, 23, and 24. However, Appellants note that nowhere in cols. 18-24 is there any suggestion, implicit or explicit, for displaying an icon representative of a note at an anchor point as claimed.

To reject this claim element, the Office Action first relies on a Webster dictionary definition. Similar to that above, Appellants note that no reference date was cited for Webster and the actual definition utilized was not provided to Appellants. Accordingly, any rejection that relies on such a definition is wholly improper and lacks merit.

In addition, Appellants note that the claims provide that the icon is representative of a note and is displayed at a particular anchor point. None of the cited references disclose or suggest the display of an icon that is representative of a note at all. Instead, all of the cited areas merely describe the creation of various labels that identify portions of a golf course. None of the labels are representative of a note.

Further, col. 24, lines 1-8 describe the use of a center of green referring to FIG. 29. FIG. 29 merely describes the various symbols the software uses to depict the attributes of a golf course of a viewing display (see col. 8, lines 25-27). The text provides:

Center of Green

When "CoG" is selected the GPS location available at the serial port is labeled and logged in the map file with a unique identifier for the center of a green. After "CoG" is pressed the user is prompted to enter the hole number and a note. The center of green is used in Course Player for the computation of distance between the target cursor and the green if "center of green" is selected in setup for the green reference point.

Such text clearly evidences that the user first selects an option to identify the center of the green and the location and identifier are then logged into the map file. Further, when the user first selects the CoG identifier to identify the center, the user is prompted to enter a hole number and a note. The current claims provide that a note object is selected and then displaying an icon representative of the NOTE at the anchor point. Again, the icon is representative of the note and is not representative of a label or center of green as in Barnard.

In addition, the cited text clearly fails to describe the display of an icon on the screen. In this regard, there is no icon displayed or indication that a note is associated with a particular attribute or anchor point on the map (as claimed). The claims specifically provide for displaying such an icon. Further, an electronic search of Barnard for the term "icon" provides no results whatsoever. Without even mentioning the word "icon", Barnard cannot possibly teach displaying such an icon at a particular location on a map.

Again, the claims provide for displaying an icon representative of a note at an anchor point. The cited portions (and the remainder of Barnard) do not provide for displaying any such icon at all. Instead, the cited portions consistently provide for labeling the data to be logged in the map file (see col. 21, lines 2-4, 11-13, 19-21, 25-26, etc.). Such a label in the map file is not an icon or the displaying of an icon of any sort. Instead, the label is inserted within the map file and is not displayed.

Additionally, after Barnard's data is labeled and completed, the user has the option of adding a note. Accordingly, even if the "label" is deemed equivalent to the claimed ICON, such a "label" cannot be representative of a note since the label is inserted regardless of whether a note is added. For example, col. 23, lines 25-28 provide:

When "Rough" is selected, the system shall label the data to be logged in the map file with a unique identifier for a rough. It then advances to the next menu. After "End" is pressed, a note may be added.

Such a teaching is clearly distinguishable from the present invention.

The Office Action then asserts that "CoG" or "FoG" are icons representative of a note that is displayed at the anchor point. Appellants respectfully disagree. Fig. 12 illustrates the item CoG:

As illustrated in Fig. 12, the items C-o-G is not displayed at an anchor point. Instead, it is

	AREA	A or L	A/L/P	LINE	POINT
SETUP >	TEE	BUNKR	TREE	PATH	PIN
DGPS >	FRWAY	ROUGH	BUSH	OB	C-o-G
LINKS >	GREEN	WATER	ROCK	DITCH	
EDIT >	HOLE	BLDG	MOUND		
<b>MARK</b> >					
VIEW >	BACK		OTHER		

**FIG. 12**

displayed within a table. Further, similar to the "Rough" example described above, only after the user depresses CoG is the user prompted to enter a hole number and note (col. 24, lines 2-5):

When "CoG" is selected the GPS location available at the serial port is labeled and logged in the map file with a unique identifier for the center of a green. After "CoG" is pressed the user is prompted to enter the hole number and a note.

Accordingly, the CoG icon cannot be representative of a note (since the note is only entered after the user has depressed an icon), and is not displayed at the anchor point the user has selected (as claimed). The similar requirements apply to FoG (see col. 24, lines 10-13).

In view of the above, it is clear that CoG, FoG are not icons that are representative of notes and that are displayed at specific anchor points.

Thus, in view of the above, Appellants submit that Barnard cannot and does not teach, disclose, or suggest the various limitations set forth in claim 9 and respectfully requests reconsideration of the rejection.

The action further asserts that Delorme teaches the claimed icons representative of notes at an anchor point. The action relies on col. 48, lines 62-67 and col. 58, lines 17-26. While these portions of Delorme describe the ability to select an icon, there is no description whatsoever that even remotely alludes to an icon that is representative of a note and that is displayed at a particular anchor point. Specifically, no reference or mention, explicit or implicit, of a note is set forth anywhere in Delorme. Without even mentioning a note, Delorme cannot possibly be used to teach an icon that is representative of such a note.

In addition, the Office Action relies on U.S. Patent 6,724,382 in rejecting this claim. However, the '382 patent was not formally utilized to reject the claims. In addition, Applicants note that the '382 patent was filed on January 23, 2001 and is a CIP of an application filed on December 4, 2000. Such dates are well after the priority dates of the present invention. Accordingly, the '382 patent is not valid prior art and cannot be used to reject the present claims.

In view of the above, Appellants submit that claim 9 is clearly non-obvious in view of the numerous cited references and is in condition for allowance.

I. Dependent Claim 10 Has Merely Been Objected To as Containing Allowable Subject Matter and is Therefore Not Separately Argued

J. Dependent Claim 11 is Patentable Over the Cited Art

Claim 11 adds the further limitation that the markup data is uploaded using an HTTP PUT request. In rejecting this claim, the final Office Action relies on col. 17, lines 49-52 and col. 15, lines 32-36 and 45-47. Col. 17, lines 49-52 provides that a web server may generate an HTML page with results of a search and return the information to a PC via the Internet. Col. 15, lines 32-36 provide that an image of a local course map requested by a user would have been gathered by aircraft or satellite and placed in a publicly accessible database. Col. 15, lines 45-47 provide that the World

Wide Web Consortium's Vector Markup Language (VML) can be employed to edit 2D golf course vectors online.

As can be seen, none of the cited text recites the use of a PUT command. Further, none of the cited text even describes the uploading of a map to a server from a PDA device. In addition, Appellants note that an electronic search of Barnard for the term "put" only provides results for the terms "input" and "putt". Without even mentioning an HTTP command or a PUT command, Barnard cannot possibly, teach, disclose, or suggest, this claimed element.

In response to the above assertions, the Office Action merely refers to US. PN 6665824, col. 7, lines 42-47, and col. 10, lines 19-23. However, the '824 patent was not used to formally reject the claims. Thus, the rejection is improper. In addition, Appellants note that the '824 patent was filed on May 15, 2000. Such a date fails to precede the priority date of the present invention. Accordingly, the '824 patent is an invalid reference and cannot be used to reject the present claims.

In addition, Appellants note that the claims provide for loading markup data to a server directory on the server using a PUT HTTP request. The mere description of a PUT request fails to provide any details relating to (1) markup data; (2) a server directory on a server; and (3) uploading markup data to a particular directory.

In view of the above, Appellants submit that claim 11 is allowable over the cited art and is in condition for allowance.

K. Dependent Claim 12 is Patentable Over the Cited Art

This dependent claim further builds upon claim 10 and provides that the application on the PDA performs additional steps. Namely, any new mapsets are downloaded and un-referenced mapsets are deleted. Further, any markup data associated with the deleted mapsets are deleted. Thus, when viewed in conjunction with claim 10, this claim enables the updating of the PDA device. In this regard, new mapsets are downloaded from the server. Additionally, if any mapset is not referenced, the mapset and any markup data associated with the mapset are deleted.

In rejecting this claim, the Office Action relies on Barnard col. 20, lines 43-49 that provides:

For an entire attribute deletion ("All") a confirmation window stating the pending action shall be displayed with a confirming "Yes" or "No" selection required. The user must select a vertex to be deleted with the stylus before the "Point" button will work. If "Point" is pressed and no point to be deleted has been selected, the user is prompted to do so. A selected vertex shall change from an unfilled 2.sup.nd box to a filled



box when it is selected. Retouching it will deselect it. Further relevant description may be found under the common components section following the "Apply", "Save" and "Cancel" items.

This text clearly illustrates that an attribute of a map or all of the attributes of a map may be deleted. However, deleting attributes of a map are not similar nor to they render obvious the deletion of a mapset. In this regard, as set forth in the specification and related applications, a mapset is a set of maps and not merely a single map (see co-pending United States Patent Application Serial No. 09/629,117, entitled "METHOD AND APPARATUS FOR OBTAINING A SET OF MAPS", by Nemmara Chithambaram et al., Attorney Docket No. 30566.112USU1, filed on July 31, 2000, which application is incorporated by reference into the present application).

Further, even if deletion of one or more attributes renders obvious the deletion of a mapset (which Appellants traverse), such a disclosure fails to determine whether such attributes are referenced or not. The claims specifically provide for deleting unreferenced mapsets. The cited text from Barnard (and the remainder of Barnard) fail to teach whether a mapset is referenced or unreferenced and the deletion of unreferenced mapsets.

In response to the above, the Patent Office asserts that it is well known in accessing the internet that anything that is not saved such as unreferenced material is automatically overwritten or deleted (and cites col. 17, lines 46-56). Appellants respectfully traverse and disagree with such an assertion. Firstly, with respect to Internet access, material that has not been accessed recently may be removed from the web browser's cache. However, the affirmative action of deleting such material from cache is not even remotely suggested in the prior art. To affirmatively delete such cache, the user must manually do so. In addition, such cache deletion is not based on unreferenced material but unaccessed material. Unreferenced material is not taught, suggested, or hinted at in any of the cited references. Col. 17, lines 46-56 provides:

If the course name is not known a different type of search (FIG. 4B through E) may be made with varying search criteria (38B through E) and search results (44B through E). The web server, generally 41, generates an HTML page, generally 43, with the results, generally 44, of the search and returns the information to the requesting PC via the Internet 42 as is well known in the art. If the desired course name is displayed 45, the user selects it to download the appropriate map or display the course layout map 46. If not, another search may be performed, generally 47.

Such text merely mentions web servers. However, there is no reference, explicit or implicit, relating to mapsets, unreferenced mapsets, deleting, deleting markup data, or deleting markup data with deleted mapsets.

Further, as claimed, once a mapset is deleted, any markup data associated with the deleted mapset is also deleted. Barnard fails to teach the deletion of markup data associated with any deleted mapsets.

In view of the above, Appellants assert that claim 12 is not taught or suggested by the prior art and is in condition for allowance.

L. Independent Claim 13 is Patentable Over the Cited Art

Independent claim 13 was rejected as follows:

As to claim 13, Barnard teaches a system for processing markup data for a map comprising a server (Col. 17, Lines 31-65) configured to: (a) obtain a file comprised of markup data for a map (Col. 20, Lines 11-15); (b) convert the markup data to coordinate data (Col. 13, Lines 3-16, Col. 15, Lines 45-47, Lines 56-659); and (c) use the coordinate data to obtain a standard data format (Col. 23, Lines 2-7, 9-28, it is well known to one ordinary skill in the art SDF or standard a data format known as ASCII, US PN 5,687,254 Col. 1, Lines 41, 4) file that can be used to superimpose the markup data on the map (Col. 17, lines 57-61).

Claim 13 is similar to claims 1 and 2 in that the file comprises markup data for a map. Claim 3 further provides for converting the markup data to coordinate data and using the coordinate data to obtain an SDF file that can be used to superimpose the markup data on the map.

Appellants reassert the arguments above with respect to claims 1 and 2 regarding the markup file. In addition, Appellants traverse the rejection of the other elements of claim 13. In rejecting the conversion of the markup data to coordinate data, the Office Action relies on col. 13, lines 3-16, col. 15, lines 45-47 and lines 56-59. Col. 13, lines 3-16 merely provides that when a mapping process is started, the current GPS location of the receiver is logged. Further, as the device moves, the new locations are logged. Such a logging of location is not equivalent to converting markup data to coordinate data.

Firstly, Appellants note that claim 13 is a server system and is not a PDA device. The claim provides a system for processing markup data for a map comprising a server that is configured to perform the various listed functions. Thus, the claim includes a limitation that the system is a server based system. Col. 13, lines 3-16 clearly provide for a mapping process utilizing the portable device of Barnard. In this regard, the device is a client based device that can easily obtain the coordinate information via its GPS system. However, the claims provide for converting markup data (received/obtained e.g., from a PDA device) into coordinate data. Such a server does not have a

built in GPS system since it is stationary (nor is there any description of such a GPS system in the present specification). Further, Appellants note that markup data is not equivalent to location data. The two are entirely different concepts that the Office Action is improperly intertwining.

Col. 15, lines 45-47 and 56-59 merely describe that a vector markup language can be used to edit golf course vectors online and that accurate golf course elevation points can be tagged with latitude and longitude coordinates using various techniques such as a GPS system. Again, such a teaching is performed on Barnard's device itself and is not used on a server. Further, the elevation point data is not converted into coordinate data as claimed. Instead, the elevation point data is tagged with latitude and longitude merely by using a GPS system, Laserplane system, etc. (as described in Barnard) (see col. 15, lines 55-col. 16, line 46).

Claim 13 further provides obtaining an SDF file that can be used to superimpose the markup data on the map. Firstly, Appellants note that an SDF file is a particular type of format as set forth in the claims and specification. In this regard, an electronic search of Barnard for the term "SDF" provides no results whatsoever. Without even mentioning the format SDF, Barnard cannot possibly teach or anticipate a claim that obtains an SDF file. Additionally, the file is used to superimpose the markup data on the map. In rejecting this claim element, the Office Action relies on col. 17, lines 57-61, which provides:

The exchange of user mapped courses will enable multiple user processing and editing to greatly enhance the quality of the maps. Moreover, individual users may add or modify features to existing course maps as they are encountered on a course.

Not one word of this text even remotely refers to, describes, or suggests, implicitly or explicitly, the superimposing of markup data on a map. Instead, the text merely refers to adding or modifying features on a course map as they are encountered on a course. Such editing in accordance with Barnard may simply open the map and/or features without ever superimposing markup data on the map. Further, an electronic search of Barnard for the terms "super" and "impose" provide no results. Accordingly, Barnard does not and cannot anticipate, teach, suggest, or render obvious claim 13.

In response to the above arguments (submitted in response to a first Office Action), the prior final Office Action provides:

Applicant argues Barnard fails to teach or suggests a server converting markup data to coordinate data.

Examiner disagrees Barnard teaches or suggests a server converting markup data to coordinate data (Col. 15, Line 25 to Col. 18, Line 2).

Applicant argues Barnard fails to teach or suggests a SDF (standard data file) file.

Examiner disagrees as Barnard teaches or suggests a SDF (standard data file) file (Col. 23, Lines 2-7, 9-28).

Applicant argues Barnard fails to teach or suggests super imposing markup data on a map.

Examiner disagrees as Barnard teaches or suggests super imposing markup data on a map (Col. 15, Lines 25-54).

With respect to the conversion of markup data to coordinate data, Appellants respectfully traverse the assertions in the final Office Action. Col. 15, line 25 to col. 18, line 2 describes a user using a GPS device to obtain data which is then transferred to a web site. Appellants assume the final Office Action is asserting the GPS data is equivalent to markup data. However, unlike the present claims, such GPS data is the markup data and is converted on the GPS device itself. Again, the claims provide a clear limitation that the system is a server that is configured to provide various functions. Instead of performing any conversion on the server, Barnard teaches the PDA device performing all functions and then uploaded data to a web site. In this regard, Barnard completely fails to teach, describe, or suggest, implicitly or explicitly, a server performing a conversion of markup data to coordinate data as claimed.

With respect to the SDF file limitations, the prior final Office Action relied on col. 23, lines 2-7 and 9-28. This portion of text merely describes the logging of data into a map file. Such a teaching is not equivalent to the SDF file set forth in the claims and described in the specification of the present invention. Page 15, line 18 - page 16, line 3 of the present specification describes SDF files. In this regard, the term SDF has a particular meaning that is established in the specification. The final Office Action is merely equating a map file with a particular SDF file. In this regard, the final Office Action is not giving the term SDF any additional meaning beyond that of a map file. Further, the claims themselves provide that the SDF file can be used to superimpose the markup data on the map. Such functionality establishes a difference between the map file to which data is being logged as set forth in Barnard.

In response to the above, the current Office Action provides that:

it is well known to one of ordinary skill in the art SDF or standard a data format known as ASCII, US PN 5,687,254 Col. 1, Lines 41,4) file that can be used to superimpose the markup data on the map (Col. 17, Lines 57-61).

Appellants again submit that US PN 5,687,254 was not formally used to reject the claims.

Accordingly, the rejection is improper. In addition, USPN 5,687,254 does not provide any ability to use an SDF file that can superimpose markup data on a map. The cited text of the '254 patent provides:

Thus, many gesture-based data handling systems assume that it is necessary to perform recognition processes on the data based on gestures in order to convert the handwritten or picture input into "recognized," predefined shapes, such as circles, rectangles or straight lines, or into a standard coded representation of characters, such as the standard data format known as ASCII, in order for the data to be suitable for use in standard processor-based applications such as word processing, electronic mail, drawing, graphics, and data base applications.

Such ASCII text is not based on coordinate data and cannot be used to superimpose markup data onto a map. Accordingly, contrary to that asserted in the Office Action, it is not well known to perform the aspects set forth in the claims.

In view of the above, Appellants submit that claim 13 is in allowable form and respectfully request reconsideration of the rejections.

In view of the above, Appellants submit that claim 13 is nonobvious and in condition for allowance.

M. Dependent Claim 14 is Patentable Over the Cited Art

As stated above, dependent claim 14 provides details regarding the coordinate data of claim 13. Namely, the coordinate data comprises mapping coordinate system (MCS) coordinates (see page 15, lines 19-23). Further, the server converts the MCS coordinates into latitude/longitude coordinates (see page 15, lines 19-23). Thus, as claimed, the server converts MCS coordinates into latitude/longitude coordinates.

In rejecting this claim, the Office Action relies on col. 13, lines 3-16, col. 15, lines 45-47 and 56-59. Col. 13, lines 3-16 provide:

FIG. 3 is a depiction of a golf course mapping process. In this depiction, as an example of a golf course feature to map, a user 25 walks the perimeter 26 of green 27 to construct a vector image display 28 of the actual green 27 in real time on the display 28 of the display module 1A. It should be understood that the following procedure is also used on bunkers, water hazards, fairways, tee boxes and other golf course features. When the software mapping process is started, the current location (Latitude and Longitude (Lat/Lon)) of the receiver 52 is logged as a new vertex 29 in the RAM of the display module 1A. The vertex 29 is also displayed on the display 28 at the same moment it is logged. Following that, locations or vertices are logged approximately once per step or pace of the user at a pre-determined time interval (each second is operable).

As can be seen in this text, the PDA device obtains a current location specified by latitude

and longitude and logs the location as a vertex into RAM. Thus, the PDA device is obtaining LAT/LON coordinates.

Col. 15, lines 25-47 provides:

All of the rectification methods above can be completed on a workstation at the web server 4. Alternatively, the individual that gathered the vector data may complete the rectification and course attribute tracing on their home PC II through their browser via the Internet. In this case, an Internet connection is made to the host web server at its Universal Resource Locator (URL), and the user requests access to an image of a local course map. This image would have been previously gathered by aircraft or satellite and placed in a publicly accessible database. Once the image is displayed, the user opens up his own vector data file and displays it over the top of the web page image. The user then manipulates the 2 or 3 green vectors or surveyed points until they lay precisely on the corresponding photographed depiction of the same greens. Upon confirming the match up, the image is rectified and the user can proceed with tracing other course attributes for vector display on the palm dGPS device. Raster to vector and pattern recognition algorithms are also useable to automatically align the photographic image green shapes with the on site collected vector data. The World Wide Web Consortium's Vector Markup Language (VML) can also be employed to edit 2D golf course vectors online.

Col. 15, lines 56-59 provides:

Although not typically mapped by a user, accurate golf course elevation point data can be tagged with latitude and longitude coordinates and gathered into the inventive unit via any of the following methods:

Col. 18, lines 2-7 provides:

Course maps may be organized in a server database progressively by: Continent; Country; State, Province, or Territory; City; Course Name. The following map and position data may be available to be exchanged for each course:

All of the above cited text clearly illustrates a PDA unit obtaining LAT/LON coordinates. However, such text (and the remainder of Barnard) does not describe the conversion of MCS coordinates into LAT/LON coordinates. Instead, such text describes obtaining LAT/LON coordinates and possibly converting it into something else (e.g., into a vertex for logging into RAM). Accordingly, contrary to the claimed conversion of MCS coordinates into LAT/LON coordinates, Barnard teaches converting LAT/LON coordinates into something else (the opposite conversion of that claimed).

In addition to the above, Appellants assert that Barnard fails to teach mapping coordinate system (MCS) coordinates. In this regard, an MCS is a particular type of coordinate system used for storing coordinates for a map. No such coordinate system is described or referenced in Barnard.

In view of the above, Appellants respectfully submit that claim 14 is nonobvious and in condition for allowance.

N. Independent Claim 15 is Patentable Over the Cited Art

Independent claim 15 was rejected as follows:

As to claim 15, Barnard teaches a graphical user interface for obtaining redline markup data (Col. 13, Lines 34-41); for a map on a personal digital assistant (Col. 12, Lines 15-25) the graphical user interface (Col. 6, Lines 34-42) comprising (a) determine when a new redline object has been selected (Col. 13, Lines 34-41); and (b) obtain a redline object (Geometric scribbles (points, lines polygon, symbols), GPS input coordinates, annotations and a geo-reference systems) (Col. 15, Lines 36-54, 56-58, Col. 16, Lines 37-42, Col. 21, Lines 47-62, Col. 22, Lines 14-40, Col. 23, Lines 2-7, 9-27) while a stylus remains in contact with a screen of the personal digital assistant (Col. 13, Lines 49-52, Col. 13, Lines 34-41, Col. 14, Lines 9-11).

Ching teaches the encoded markup data is a redline line (Col. 6, Lines 17-35, Col. 20, Lines 6-10, Lines 18-21).

Claim 15 provides for obtaining redline markup data on a map. Specifically, a new redline object is selected. Thereafter, a redline object is obtained while a stylus remains in contact with a screen of the PDA. It is well established and set forth in the specification that the redline object is an object comprised of a redline that is used to comment/markup the drawing/map displayed on the PDA. Further, the redline is a zero width vector that mimics ink flowing from a stylus, and an associated text note that pops up as a tooltip when the object is selected (see page 6, lines 7-17).

Such a redline object is not equivalent to the vectors cited in Barnard. Specifically, Barnard merely provides for the creation of various vertex points by moving Barnard's device (e.g., a GPS system). Vectors are drawn between the points (see col. 13, lines 3-41). The user can then edit the vertex points using the stylus to drag one vertex location to another vertex location. The vectors/rays between the vertex points are dragged with the dragged vertex point (see col. 13, lines 34-41). Accordingly, instead of marking up a map with a redline (as claimed), Barnard merely allows the user to adjust a vertex attached to a line. Such a teaching does not even remotely suggest the present invention.

As stated above, this claim specifies details for obtaining markup data from a user. Namely, a determination is made regarding when a new redline object has been selected. Thereafter, a redline object is obtained while a stylus remains in contact with a screen of the PDA.

In rejecting this claim, the final Office Action relies on col. 13, lines 34-41 to teach the determination element. However, contrary to that asserted in the Office Action, col. 13, lines 34-41

do not provide for a determining when a new redline object has been selected. Instead, col. 13, lines 30-41 of Barnard merely provides the ability to correct an existing vertex:

The GPS mapping software of the present invention provides the user the ability to move errant vertices 35 into a position on the display that more correctly represent the perimeter of the course attribute being mapped. This is an opportune time and place to make corrections to the data since the user has just traversed the object and knows its approximate shape. On the display 28 of the Display Module 1A, as a stylus is touched to a vertex 29 and it is dragged to a location that better defines the shape that was just mapped, the attached rays 30 follow. When the stylus is removed from the Display Module 1A, the new vertex location 35A is logged in place of the old one.

As can be seen in this cited text, Barnard provides the ability for the user to select a vertex that is part of an existing line and the ability to adjust the vertex. Such a selection of an existing vertex is not a determination of when a new redline object has been selected. In this regard, a new redline object is not equivalent to an existing vertex of a shape. Further, Barnard's shape that is adjusted (i.e., by moving the selected vertex) is not marking up the shape but is adjusting the shape. Also, such an adjustment is not a redline line.

The Office Action continues and relies upon col. 15, lines 36-54, 56-58, col. 16, lines 37-42, col. 21, lines 47-62, col. 22, lines 14-40, and col. 23, lines 2-7 and 9-27 to teach the claimed obtaining of the redline object. Further, the final Office Action relies on col. 13, lines 49-52, col. 13, lines 34-41, and col. 14, lines 9-11 for the stylus controlled aspects of the claim. Appellants respectfully disagree with such an assertion.

Appellants note that all of the cited portions do not address marking up a map through a user controlled stylus operation. Instead, these portions of Barnard recited for the "obtaining" aspect of the claim describe the process of creating a map or marking up a map merely through the use of positioning data obtained by the GPS device. In this regard, Barnard completely fails to describe, implicitly or explicitly, the ability to markup a map using a stylus to draw a line. Instead, as set forth in col. 21 and 22, the user selects a mark function (followed by the selection of a specific mark type) wherein the system begins collecting position data via the GPS device. Such portions do not describe, suggest, or allude to the collection of any markup data using a stylus device that remains in contact with a screen to create a redline object.

In addition, the portions relied upon for the stylus aspects of the claim also fail to describe a dragging stylus to obtain a redline object. Instead, the cited portions of Barnard (and the remainder of Barnard) merely describe the ability to adjust a vertex (as described above) and that the system



may color a vertex in red to indicate the quality of the position information (see col. 13, lines 49-51). In this regard, the cited portions fail to describe the creation or obtaining of a redline object while a stylus remains in contact with a screen of the PDA.

In response to the above, the pending Office Action provides that Ching teaches the encoded markup data is a redline line (col. 6, lines 17-35, Col. 20, Lines 6-10, Lines 18-21). Ching describes the ability to compare documents (see title). Col. 6, lines 17-35 describe web documents and the use of HTML or other markup languages. Col. 20, lines 6-10 describes contents of segments displayed side-by-side. Lastly, col. 20, lines 18-21 describe that differences in content may be indicated by way of underlining, "redlining", or differing colors.

As can be seen, the cited text completely fails, both explicitly and implicitly, to describe a stylus that remains in contact with a screen of a PDA device to create a redline object. In this regard, Ching's comparison of two documents to display a redline object is not even remotely similar to the present invention as set forth in the claims.

In view of the above, Appellants submit that claim 15 is allowable over the cited references and respectfully request reconsideration of the rejections.

O. Dependent Claim 16 is Patentable Over the Cited Art

Dependent claim 16 provides further details with respect to claim 15. Namely, the GUI displays a text edit dialog box on the PDA screen and accepts text user input in the text dialog box (see page 21, line 17-page 22, line 17).

Appellants assert the arguments set forth above with respect to claim 7. In view of such arguments, Appellants respectfully request reconsideration of the rejections of claim 16.

P. Dependent Claim 17 Has Merely Been Objected To as Containing Allowable Subject Matter and is Therefore Not Separately Argued

Q. Independent Claim 18 is Patentable Over the Cited Art

Independent claim 18 was rejected as follows:

As to claim 18, Barnard teaches a graphical user interface for obtaining redline markup data (Col. 13, Lines 34-41); for a map on a personal digital assistant (Col. 12, Lines 15-25) the graphical user interface (Col. 6, Lines 34-42) comprising: (a) determine when a new note object has been

selected (Col. 20, Lines 56-58, Col. 21, Lines 48-55); (b) accept a user selection of; an anchor point in a display of a map on the personal digital assistant (Col. 21, Lines 55-60); (c) display a text entry screen on the personal digital assistant (Col. 20, Lines 56-60, Col. 21, Lines 53-67, Col. 22, Lines 2-5); (d) accept text user input in the text entry screen (Col. 21, Lines 65-67); and (e) display an icon (Webster defines icon as pictorial representation, Col. 18, Lines 58-60, Col. 23, Lines 2-7, Col. 24, Lines 2-9, where "CoG" or "FoG" are ICON representing a specific file to be opened by srylus, Col. 21, Lines 53-55 where each button displayed are pictorial representation and are ICON) representative of a note at the anchor point (Col. 21, Lines 55-60, Col. 22, Lines 2-5 starting and ending points are anchor point it is well known to one ordinary skill in the art of a predetermined anchor point of zone, e.g. its centroid, its top left corner US PN 6,724,382 Col. 7, Lines 59-62).

DeLorme teaches (e) display an icon (Webster defines icon a pictorial representation, Col. 48, lines 62-67, Col. 58, Lines 16-26) representative of a note at the anchor point (Col. 48, Lines 13-15, Boothbay Me is an anchoring point, it is well known to one ordinary skill in the art a predetermined anchor point of zone, e.g. its centroid, its top left corner US PN 6,724,382 Col. 7, Lines 59-62).

Claim 18 provides for obtaining a note markup data for a map on a PDA. Specifically, upon selecting a new note object, an anchor point is selected, a text entry screen is used to enter text input, and an icon representative of a note is displayed at the anchor point.

In rejecting this claim, the Office Action recites various portions of cols. 18, and 20-24. However, Appellants note that nowhere in cols. 18-24 is there any suggestion, implicit or explicit, for displaying an icon representative of a note at an anchor point as claimed.

Appellants reassert the arguments set forth above with respect to claim 9. In view of such arguments, Appellants submit claim 18 is in allowable form and respectfully request reconsideration of the rejections.

R. Dependent Claim 19 is Not Separately Argued

S. Dependent Claim 56 Has Merely Been Objected To as Containing Allowable Subject Matter and is Therefore Not Separately Argued

T. Dependent Claims 57-58 Are Patentable Over the Cited Art

Dependent claims 56, 57, and 58 provide limitations with respect to the system of claims 1, 2, and 13 respectively. Namely, these claims provide that the markup data is separate from a file of the geographic data/map.

In rejecting these claims, the Office Action relies on Barnard, col. 18, lines 3-20, col. 25, lines 34-56, col. 15, lines 17-53, col. 16, lines 51-67, col. 41, lines 8-64, and col. 27, lines 31-33.

Col. 18, lines 3-20 describes map data files that can include typical score card data.

Col. 25, lines 34-56 describes the ability to upload course data to a PC for use in an instant replay. This portion of text also describes how a user can edit the course map and upload such a course map to a web site.

Col. 15, lines 17-53 describes a satellite or aerial picture of a golf course obtained by a user (wherein GPS coordinate are captured each time a picture is taken). Thereafter, the user can upload the pictures and coordinates to a web server. Further, the user can then retrieve the uploaded golf course images (i.e., the image captured by the user or by another user) and open up his own vector mapped data obtained using a GPS device and display it over the top of the web page image. Thus, col. 15, lines 17-53 does describe the placement of a vector map file over a web page image. However, Appellants note that such golf course images are only images that can be used by users to trace and create the map for PDA use (see col. 15, lines 23-24 and 39-42). Accordingly, the graphic image that the vector map is placed over is merely used to allow the user to trace and update the user's vector map file. Such a graphic image is not a map as set forth in the claims or as understood in the art.

Col. 16, lines 51-67 describes the user of a PDA GPS type device that is used to create or edit maps of golf courses and exchange such information with other golfers through an Internet site. The text describes how the course can be edited using positional data.

Col. 41, lines 8-64 are claims 27-31 of Barnard. Barnard claim 27 describe the ability to label a topographic characteristic of a map (see claim 25) using positional data obtained from the device. Barnard claims 28 and 30 specify that a geographic region is a golf course and position information comprises attributes of the golf course. Further, the map data file is retrieved from positional equipment at the golf course. Barnard claim 29 describes the ability for a user to modify location data. Barnard claim 31 describes the use of a position module of a PDA that can be used to store and display the map data file. Barnard claim 32 describes a viewing device that has a data link.

Col. 27, lines 31-33 describe displaying a name for courses loaded into a RAM flash card or other memory storage system.

The above cited texts all describe various features of Barnard. However, none of the described features even remotely describe markup data that is maintained in a separate file from that of the geographic data/map (as claimed). In this regard, the above cited text (and the remainder of

Barnard) consistently describes a map file that contains the data obtained by the user through the GPS system. The text fails to describe, implicitly or explicitly, any separation of markup data from a map itself. Further, the text describes how the obtained positional data is stored with the map file itself and not separately. The Examiner has failed to site any portion of Barnard that teaches or even remotely alludes to the separation of markup data from the map file (as claimed). To the contrary, Barnard teaches away from such an implementation by teaching the editing of a map itself with any data from the user.

In response to the above, the Office Action merely repeats the rejection and states:

Applicant argues storage taught by cited reference is not a disk.

Examiner argues back as none of the claim recites storage has to be a disk.

Appellants respectfully traverse such an assertion. Namely, Appellants' arguments do not assert that the storage has to be a disk. Instead, Appellants' arguments relate to the separation of the file comprised of the markup data from the file comprised of the geographic data. Such a teaching is wholly lacking from the cited references.

In view of the above, Appellants respectfully request reconsideration of the rejections.

U. Dependent Claims 20-37, 59-60, 38-55, and 61-62 Are Not Separately Argued

Claims 20-37 and 59-60 are method claims corresponding to system claims 2-19.

Claims 38-55 and 61-62 are article of manufacture claims corresponding to system claims 2-19.

For the reasons stated above with respect to the corresponding claims, Appellants traverse the rejections of these claims and respectfully request reconsideration of the rejections.

Moreover, the various elements of Appellants' claimed invention together provide operational advantages over Barnard, DeLorme, Ching, and Neal. In addition, Appellants' invention solves problems not recognized by Barnard, DeLorme, Ching, and Neal.

Thus, Appellants submit that independent claims 1, 2, 13, 15, 18, 20, 31, 33, 36, 38, 49, 51, and 54 are allowable over Barnard, DeLorme, Ching, and Neal. Further, dependent claims 3-12, 14, 16-17, 19, 21-30, 32, 34-35, 37, 39-48, 50, 52-53, and 55-62 are submitted to be allowable over Barnard, DeLorme, Ching, and Neal in the same manner, because they are dependent on independent claims 1, 2, 13, 15, 18, 20, 31, 33, 36, 38, 49, 51, and 54, respectively, and thus contain

all the limitations of the independent claims. In addition, dependent claims 3-12, 14, 16-17, 19, 21-30, 32, 34-35, 37, 39-48, 50, 52-53, and 55-62 recite additional novel elements not shown by Barnard, DeLorme, Ching, and Neal.

VIII. Conclusion

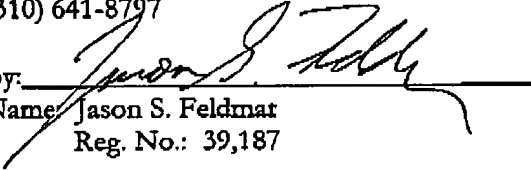
In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Appellants' undersigned attorney.

Respectfully submitted,

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## CLAIMS APPENDIX

1. A system for processing markup data for a map on a personal digital assistant comprising:
  - (a) a personal digital assistant;
  - (b) an application on the personal digital assistant, the application configured to:
    - (i) obtain a map as an encoded and spatially indexed vector representation of geographic data from a server;
    - (ii) display the map on a screen of the personal digital assistant;
    - (iii) obtain markup data comprised of pixel data from a user that utilizes a stylus to markup the map displayed on the personal digital assistant;
    - (iv) create a file comprised of the markup data;
    - (v) upload the file of markup data from the personal digital assistant to the server.
2. A system for processing mark up data for a map comprising:
  - (a) a personal digital assistant; and
  - (b) an application on the personal digital assistant, the application configured to:
    - (i) obtain a file comprised of markup data for a map; and
    - (ii) upload the file to a server.
3. The system of claim 2 wherein the markup data comprises pixel data for a markup entity.
4. The system of claim 2 wherein the personal digital assistant obtains the file by obtaining markup data from a user.
5. The system of claim 4 wherein the markup data is a redline line.

6. The system of claim 5 wherein the application configured to obtain the markup data from a user is further configured to:

- (a) determine when a new redline object has been selected; and
- (b) obtain a redline object while a stylus remains in contact with a screen of the personal digital assistant.

7. The system of claim 6, the application configured to obtain further configured to:

- (a) display a text edit dialog box on the screen of the personal digital assistant; and
- (b) accept text user input in the text edit dialog box.

8. The system of claim 4 wherein the markup data is a note.

9. The system of claim 8 wherein the application configured to obtain the markup data from a user is further configured to:

- (a) determine when a new note object has been selected;
- (b) accept a user selection of an anchor point in a display of a map on the personal digital assistant;
- (c) display a text entry screen on the personal digital assistant;
- (d) accept text user input in the text entry screen; and
- (e) display an icon representative of a note at the anchor point.

10. The system of claim 2 wherein the application uploads the data to a server by:

- (a) obtaining a socket connection;
- (b) obtaining an inventory of resident mapsets;
- (c) searching for markup data associated with the resident mapsets; and
- (d) uploading all resident markup data to the server.

11. The system of claim 10 wherein the markup data is uploaded to a server directory on the server using a hypertext transfer protocol PUT request.

12. The system of claim 10, the application on the personal digital assistant further configured to:

- (a) download any new mapsets;
- (b) delete unreferenced mapsets; and
- (c) delete any markup data associated with the deleted mapsets.

13. A system for processing mark up data for a map comprising a server configured to:

- (a) obtain a file comprised of markup data for a map;
- (b) convert the markup data to coordinate data; and
- (c) use the coordinate data to obtain a standard data format (SDF) file that can be used to superimpose the markup data on the map.

14. The system of claim 13 wherein the coordinate data comprises mapping coordinate system (MCS) coordinates and the server is further configured to convert the MCS coordinates to latitude/longitude coordinates.

15. A graphical user interface for obtaining redline markup data for a map on a personal digital assistant, the graphical user interface comprising:

- (a) determining when a new redline object has been selected; and
- (b) obtaining a redline object while a stylus remains in contact with a screen of the personal digital assistant.

16. The graphical user interface of claim 15 further comprising:

- (a) displaying a text edit dialog box on the screen of the personal digital assistant; and
- (b) accepting text user input in the text edit dialog box.

17. The graphical user interface of claim 16 further comprising synchronizing the redline markup data with a server.



18. A graphical user interface for obtaining note markup data for a map on a personal digital assistant, the graphical user interface comprising:

- (a) determining when a new note object has been selected;
- (b) accepting a user selection of an anchor point in a display of a map on a personal digital assistant;
- (c) displaying a text entry screen on the personal digital assistant;
- (d) accepting text user input in the text entry screen; and
- (e) displaying an icon representative of a note at the anchor point.

19. The graphical user interface of claim 18 further comprising synchronizing the redline markup data with a server.

20. A method for processing mark up data for a map comprising:  
obtaining a file comprised of markup data for a map on a personal digital assistant; and  
uploading the file from the personal digital assistant to a server.

21. The method of claim 20 wherein the markup data comprises pixel data for a markup entity.

22. The method of claim 20 wherein the obtaining comprises obtaining markup data from a user.

23. The method of claim 22 wherein the markup data is a redline line.

24. The method of claim 23 wherein the obtaining the markup data from a user comprises:

- (a) determining when a new redline object has been selected; and
- (b) obtaining a redline object while a stylus remains in contact with a screen of the personal digital assistant.

25. The method of claim 24, the obtaining further comprising:
  - (a) displaying a text edit dialog box on the screen of the personal digital assistant; and
  - (b) accepting text user input in the text edit dialog box.
26. The method of claim 22 wherein the markup data is a note.
27. The method of claim 26 wherein the obtaining the markup data from a user comprises:
  - (a) determining when a new note object has been selected;
  - (b) accepting a user selection of an anchor point in a display of a map on the personal digital assistant;
  - (c) displaying a text entry screen on the personal digital assistant;
  - (d) accepting text user input in the text entry screen; and
  - (e) displaying an icon representative of a note at the anchor point.
28. The method of claim 20 wherein the uploading the data to a server comprises:
  - (a) obtaining a socket connection;
  - (b) obtaining an inventory of resident mapsets;
  - (c) searching for markup data associated with the resident mapsets; and
  - (d) uploading all resident markup data to the server.
29. The method of claim 28 wherein the markup data is uploaded to a server directory on the server using a hypertext transfer protocol PUT request.
30. The method of claim 28 further comprising:
  - (a) downloading any new mapsets;
  - (b) deleting unreferenced mapsets; and
  - (c) deleting any markup data associated with the deleted mapsets.
31. A method processing mark up data for a map comprising:

- (a) obtaining a file comprised of markup data for a map;
- (b) converting the markup data to coordinate data; and
- (c) using the coordinate data to obtain a standard data format (SDF) file that can be used to superimpose the markup data on the map.

32. The method of claim 31 wherein the coordinate data comprises mapping coordinate system (MCS) coordinates and the method further comprises converting the MCS coordinates to latitude/longitude coordinates.

33. A method for obtaining redline markup data for a map on a personal digital assistant, the method comprising:

- (a) determining when a new redline object has been selected; and
- (b) obtaining a redline object while a stylus remains in contact with a screen of the personal digital assistant.

34. The method of claim 33 further comprising:

- (a) displaying a text edit dialog box on the screen of the personal digital assistant; and
- (b) accepting text user input in the text edit dialog box.

35. The graphical user interface of claim 34 further comprising synchronizing the redline markup data with a server.

36. A method for obtaining note markup data for a map on a personal digital assistant, the method comprising:

- (a) determining when a new note object has been selected;
- (b) accepting a user selection of an anchor point in a display of a map on a personal digital assistant;
- (c) displaying a text entry screen on the personal digital assistant;
- (d) accepting text user input in the text entry screen; and
- (e) displaying an icon representative of a note at the anchor point.

37. The graphical user interface of claim 36 further comprising synchronizing the redline markup data with a server.

38. An article of manufacture comprising a program storage medium readable by a computer hardware device and embodying one or more instructions executable by the computer hardware device to perform a method for processing markup data for a map, the method comprising:

obtaining a file comprised of markup data for a map on a personal digital assistant; and  
uploading the file from the personal digital assistant to a server.

39. The article of manufacture of claim 38 wherein the markup data comprises pixel data for a markup entity.

40. The article of manufacture of claim 38 wherein the obtaining comprises obtaining markup data from a user.

41. The article of manufacture of claim 40 wherein the markup data is a redline line.

42. The article of manufacture of claim 41 wherein the obtaining the markup data from a user comprises:

(a) determining when a new redline object has been selected; and  
(b) obtaining a redline object while a stylus remains in contact with a screen of the personal digital assistant.

43. The article of manufacture of claim 42, the obtaining further comprising:

(a) displaying a text edit dialog box on the screen of the personal digital assistant; and  
(b) accepting text user input in the text edit dialog box.

44. The article of manufacture of claim 40 wherein the markup data is a note.

45. The article of manufacture of claim 44 wherein the obtaining the markup data from a user comprises:

- (a) determining when a new note object has been selected;
- (b) accepting a user selection of an anchor point in a display of a map on the personal digital assistant;
- (c) displaying a text entry screen on the personal digital assistant;
- (d) accepting text user input in the text entry screen; and
- (e) displaying an icon representative of a note at the anchor point.

46. The article of manufacture of claim 38 wherein the uploading the data to a server comprises:

- (a) obtaining a socket connection;
- (b) obtaining an inventory of resident mapsets;
- (c) searching for markup data associated with the resident mapsets; and
- (d) uploading all resident markup data to the server.

47. The article of manufacture of claim 46 wherein the markup data is uploaded to a server directory on the server using a hypertext transfer protocol PUT request.

48. The article of manufacture of claim 46, the method further comprising:

- (a) downloading any new mapsets;
- (b) deleting unreferenced mapsets; and
- (c) deleting any markup data associated with the deleted mapsets.

49. An article of manufacture comprising a program storage medium readable by a computer hardware device and embodying one or more instructions executable by the computer hardware device to perform a method for processing markup data for a map, the method comprising:

- (a) obtaining a file comprised of markup data for a map;

- (b) converting the markup data to coordinate data; and
- (c) using the coordinate data to obtain a standard data format (SDF) file that can be used to superimpose the markup data on the map.

50. The article of manufacture of claim 49 wherein the coordinate data comprises mapping coordinate system (MCS) coordinates and the method further comprises converting the MCS coordinates to latitude/longitude coordinates.

51. An article of manufacture comprising a program storage medium readable by a computer hardware device and embodying one or more instructions executable by the computer hardware device to perform a method for obtaining redline markup data for a map on a personal digital assistant, the method comprising:

- (a) determining when a new redline object has been selected; and
- (b) obtaining a redline object while a stylus remains in contact with a screen of the personal digital assistant.

52. The article of manufacture of claim 51, the method further comprising:

- (a) displaying a text edit dialog box on the screen of the personal digital assistant; and
- (b) accepting text user input in the text edit dialog box.

53. The article of manufacture of claim 52, the method further comprising synchronizing the redline markup data with a server.

54. An article of manufacture comprising a program storage medium readable by a computer hardware device and embodying one or more instructions executable by the computer hardware device to perform a method for obtaining note markup data for a map on a personal digital assistant, the method comprising:

- (a) determining when a new note object has been selected;
- (b) accepting a user selection of an anchor point in a display of a map on a personal digital assistant;

- (c) displaying a text entry screen on the personal digital assistant;
- (d) accepting text user input in the text entry screen; and
- (e) displaying an icon representative of a note at the anchor point.

55. The article of manufacture of claim 54, the method further comprising synchronizing the redline markup data with a server.

56. The system of claim 1 wherein the file comprised of markup data is separate from a file of the geographic data.

57. The system of claim 2 wherein the file comprised of markup data is separate from a file comprised of the map.

58. The system of claim 13, wherein the file comprised of markup data is separate from a file comprised of the map.

59. The method of claim 20, wherein the file comprised of markup data is separate from a file comprised of the map.

60. The method of claim 31, wherein the file comprised of markup data is separate from a file comprised of the map.

61. The article of manufacture of claim 38, wherein the file comprised of markup data is separate from a file comprised of the map.

62. The article of manufacture of claim 49, wherein the file comprised of markup data is separate from a file comprised of the map.

EVIDENCE APPENDIX

None



RELATED PROCEEDINGS APPENDIX

None